

# Carleton University

Ottawa, Canada's Capital



## President's Report 2001



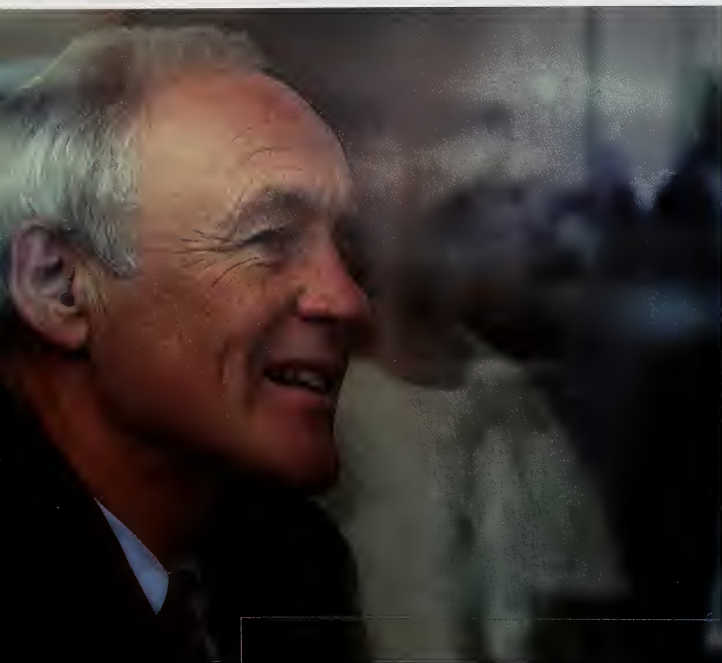
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## President's Message

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Carleton has long been known not only as a tolerant, open and academically advanced university, but also as an institution that responds positively to—and thrives upon—change. The past five years have been a period of tremendous change in which we continually found opportunity, all the while renewing our academic focus and laying the financial foundations for long-term success. Many challenges remain, including the immense task of managing growth in the immediate future.

Carleton has been planning for increased student enrolment ever since the province of Ontario announced reforms to the secondary school system. Thanks to the Ontario government's SuperBuild program and our highly successful Capital Campaign, we've embarked on the biggest expansion program in Carleton's history. New buildings will provide additional residence spaces, classrooms and laboratories. Through a vigorous recruitment campaign, the University has hired more than 50 new faculty members in each of the last three years—part of a drive that will significantly improve the depth and calibre of our full-time faculty and our non-academic staff by 2004.

At Carleton, we strive to manage growth responsibly. Our aim is not simply to increase the number of students, but also to continuously improve the academic qualifications and experiences of our students. We now have the fastest-rising entry average of any university in Canada—and our students report they are pleased with their decisions to attend Carleton—but we know we can do more. A few years ago, we introduced first-year seminars to help arts and science students develop the skills they need to succeed in university. Today we are enhancing our student-support efforts through, among other things, the creation of a one-stop counselling and registrar service centre.

The success of recent research projects has underlined the benefits—and the significance—of Carleton's focus on research. Today, we collaborate with more than 20 institutions in numerous large research ventures funded by the public and private sectors. As a result, our research enterprise has nearly doubled in the past year—and there is every indication that this rapid expansion will continue.

In this annual report, I am proud to present the activities and accomplishments, the people and programs that give Carleton University momentum as it continues to advance on the national stage.

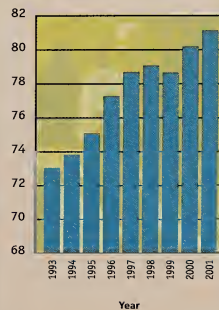
Richard J. Van Loon  
President and Vice-Chancellor, Carleton University



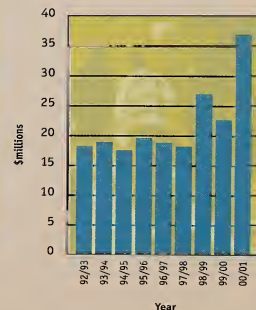
## The Momentum Continues

- Entry averages are rising faster at Carleton than any other university in Canada. In 2001, the entry average of new first-year students was nearly 81 percent—an increase of more than nine percent in the past decade.
- Research funding continues to grow. This year, Carleton secured more than \$54 million in multi-year external research grants and contracts, the highest in the University's history.
- Carleton University ranked first in Canada in international research collaboration and third in the quality of scientific research output, according to a study by the Montreal-based *Observatoire des Sciences et des Technologies* (OST) released in late 2000. Carleton also had impressive results in specific fields of study, placing first in chemistry, second in physics, and fourth in biology and engineering/technology. The OST ranked 27 Canadian universities according to research output in natural, engineering, and biomedical sciences.
- Carleton professors continue to achieve high marks in student teaching assessments. The average score of our faculty, including full-time and sessional teachers, is 4.3 on a 5-point scale.

**Mean Admission Average for new High School Registrants in First Year at Carleton**



**Total Research Expenditures**







The new Leeds residence opened in 2001.

- Carleton University undergraduate students express high levels of satisfaction with their programs. A full 90 percent of first-year students indicate that they are very happy with their decision to attend Carleton.
- Carleton co-op programs are growing rapidly. While co-operative education opportunities are now available through 25 degree programs, the number of students involved in co-op has also increased dramatically—up from 102 students in 1996 to more than 1,000 in 2001.

- Carleton University is building for the future. Over the next two years, the University will be engaged in an extensive building program to meet future enrolment demands and enhance students' academic experience. This \$120-million program includes new residences, biology facilities and teaching space, as well as improved laboratory facilities and a registrarial services centre.



Construction gets underway on the new David J. Azrieli Pavilion.

- Campus accessibility was significantly enhanced following the launch of Ottawa's new O-Train. Thanks to a major stop in the heart of the Carleton University campus, the lightrail transit system provides students with state-of-the-art, affordable transportation.
- Carleton University rewards top students. This year, our generous scholarship program provided more than nine million dollars in scholarships and bursaries to 5,000 new and returning students. More than 40 percent of incoming first-year students received entrance scholarships in 2001. The University allocates more than six percent of its operating budget to scholarships, loans, and bursaries.
- Carleton is one of the few universities in Canada to offer unique first-year seminar courses to arts and science students. In small group settings—and with guidance from experienced professors—students develop the communication, study, and analytical skills needed for success in university and beyond.



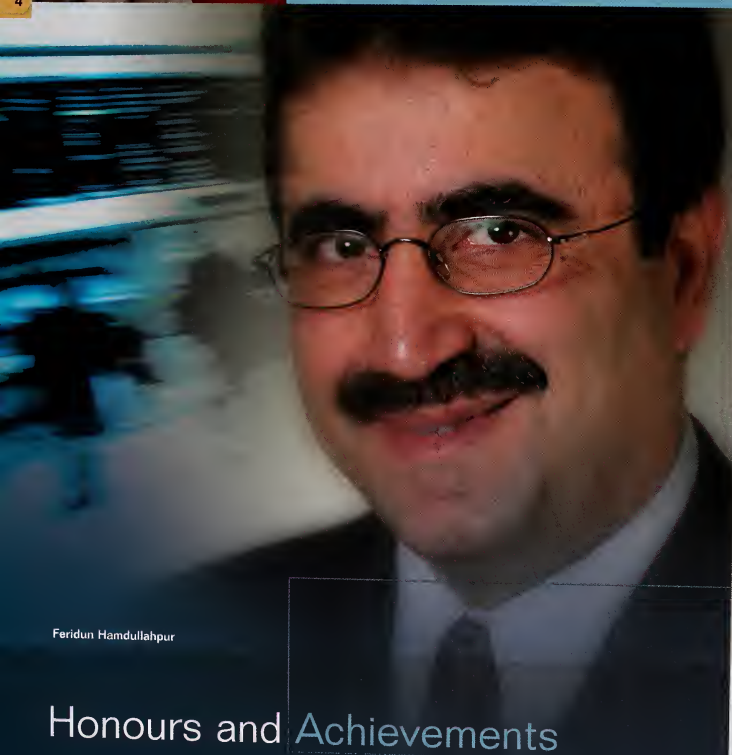
Chancellor's Scholarship winners (left to right): Diane Ioan, Sophie Tilgner, and Janna Ferguson





### Betty Weiss Memorial Award

Lynn Giff of the Department of Psychology and Marianne Keyes of Computing and Communications Services shared the 2001 Betty Weiss Memorial Award. Presented annually to students or employees who distinguish themselves through the care, commitment, and service they provide to others at the University, the award honours the memory of Betty Weiss, a past administrator of the Faculty of Social Sciences.



Feridun Hamdullahpur

## Honours and Achievements

### A New Vision for Research

Carleton's vision for the future is perhaps best exemplified by the appointment of Dr. Feridun Hamdullahpur as Vice-President (Research). In his new role, this former Associate Principal of Graduate Studies and Research at DalTech-Dalhousie University spearheads Carleton's research advancement on several fronts:

- establishing a more efficient administrative structure in support of the University's researchers;
- identifying strategic research areas;
- developing research opportunities and expertise;
- liaising with government, business, granting councils, and other institutions on matters of research; and
- furthering the University's international programs.

"My goal is to see Carleton University take its place among the finest graduate studies and research institutions," says Hamdullahpur. "I recognize not only Carleton's growing role as an industry-university collaborative research centre, but also the institution's potential as a model for interdisciplinary and interfaculty co-operation—

## New Advances

In June, 2001, Carleton alumna **Lucinda (Cindy) E. Boucher** was appointed to a seven-year term as the University's Vice-President (Advancement). A communications and marketing professional with more than 20 years of experience in the public and private sectors, Boucher will work to expand Carleton's profile, external presence, and alumni pride – particularly at the national level. She is responsible for several divisions of the University including marketing and communications, government relations, development, and alumni relations.



an institution in which our four primary faculties come together to create new opportunities in everything from photonics to e-business.”

While Hamdullahpur brings a strong entrepreneurial spirit to his new role at Carleton, his passion for academia—and as a researcher—burns as brightly as ever. He remains abreast of developments in his chosen field of fluid dynamics, and continues to supervise a number of graduate students.

Hamdullahpur's enthusiasm for the success of Carleton's research enterprise is a measure of his leadership—a leadership founded in the breadth of his international experience, as well as his skills as a researcher and research administrator.

## Speaking of Science

In recent decades, quantum advances in science have heightened the need for excellence in communicating these developments to the public. Last year, Carleton responded with yet another landmark innovation in Canadian media education—the initiation of the CTV Chair in Science Broadcast Journalism. The Chair is one of only two endowed chairs in the 56-year history of Carleton's School of Journalism and Communication. The position builds on Carleton's international reputation for excellence in mass media by being one of a select few science-communication chairs in the world.



This year, veteran broadcaster Kathryn O'Hara was appointed the first Chair. A media specialist in clinical embryology, O'Hara holds a master's degree in science communication from The Queen's University of Belfast. Most recently, she's worked as a producer for the BBC/CBC series *Quirks and Quarks* and *Ideas*.



Newly appointed to the School of Journalism and Communication, Andrew Cohen is himself a Carleton journalism graduate; he also holds an M.A. from the Norman Paterson School of International Affairs. He is a former foreign editor and foreign affairs columnist for *The Financial Post*, and has also served as a correspondent for *Saturday Night Magazine* and *The Globe and Mail*. Cohen is a former Visiting Fellow at the Centre of International Studies at the University of Cambridge, and the author of *A Deal Undone: The Making and Breaking of the Meech Lake Accord*.

## A Canadian First

Recognizing both the public's growing interest in economic and financial matters, and the need for better business reporting in the media, Carleton recently launched the Carty Chair in Business and Financial Journalism. The first of its kind in Canada, the Carty Chair will provide leadership in the training of business journalists by ensuring students have the opportunity to develop specialized business reporting skills.



The first to occupy the Carty Chair will be veteran journalist Chris Waddell, former Parliamentary Bureau

Chief for CBC News. Waddell also served as a senior editor at *The Financial Post* and, as Ottawa Bureau Chief for *The Globe and Mail* from 1984 to 1991, covered the negotiations that led to the North American Free Trade Agreement.





## A Full Schedule

The list of this year's achievements would be incomplete without mention of Carleton student **Deb Thompson**. While maintaining the A-average required of the Chancellor's Scholarship awarded to her two years ago, Thompson works 35 to 40 hours a week at three jobs. She also coaches the Glebe Collegiate Institute's girls' high school basketball team—in her spare time.



Brian McKillop

## A Banner Year

Brian McKillop won't easily forget the past year. The Carleton history professor racked up a stunning list of accomplishments, topped by his appointment to the 119-year-old Royal Society of Canada. Considered Canada's senior academic accolade, Royal Society Fellowship recognizes men and women who have a made a profound impact on the sciences and humanities in this country.

In October 2000, McKillop learned he had been nominated for a Governor General's Literary Award for his non-fiction work *The Spinster and the Prophet—Florence Deeks, H.G. Wells and the Mystery of the Purloined Past*. Then, in September 2001, *The Spinster and the Prophet* took the \$10,000 top prize at the Toronto Book Awards, beating the likes of Margaret Atwood and Catherine Bush. The book also won the University of British Columbia President's Medal for Biography and the Albert Ellis Award of the Crime Writers of Canada for "Best True Crime."

A brilliant work of historical research, *The Spinster and the Prophet*—part biography, part detective story—explores the charge of plagiarism made by the Canadian amateur historian Florence Deeks against the famous British author H.G. Wells. McKillop's work addresses the larger issues of fame, power, and imperial authority as Britain's male-dominated writing establishment closes ranks to protect its own.

Crediting *The Spinster and the Prophet* as well as his broader efforts, his Royal Society nomination citation notes McKillop "has analyzed challenges to traditional religious and humanist values" and has shown "how Ontario universities have reflected and have also shaped social and intellectual ideas." The commendation goes on to say that McKillop has always "conveyed his careful scholarship and his perceptive insights in a clear and accessible prose, seasoned with irony and wit."

McKillop was inducted into the Royal Society in November 2001.





## New Sun Rising

The New Sun Chair in Aboriginal Art and Culture will contribute significantly to the development of future generations of scholars in the field of native studies.

Nationally acclaimed scholar **Allan J. Ryan** was appointed to the New Sun Chair in Aboriginal Art and Culture in July 2001. The first university position of its kind in Canada, the Sun Chair is a cross-appointment between Canadian studies and art history.

Ryan's appointment has been well-received within the aboriginal community, where his sensitive engagement has won him wide respect among native artists and scholars. He looks forward not only to breaking down stereotypes and combating ignorance of the realities of native life, but also to moving beyond issues of tolerance to ensure that the appreciation and celebration of aboriginal works extends beyond the native community.

## Employee Recognition Day

The University celebrated its first Employee Recognition Day in June this year. The entire University staff enjoyed an outdoor luncheon, followed by a range of activities, workshops, and information sessions. According to Dr. Stuart Adam, Vice-President (Academic), the fun-filled day was "set aside to show all our non-academic employees how much we value their many contributions to the University."



## The Best on the Web

*Capital News Online* ([www.capitalnews.ca](http://www.capitalnews.ca))—Carleton University's Web-based newsmagazine—won first place in the student journalism category of the Association for Education in Journalism and Mass Communication's (AEJMC) Best of the Web competition. Presented at the AEJMC annual conference in Washington, D.C., the award recognizes Carleton as a leader in Web-journalism education.

## Global Challenges

The course of the future is being charted in many different ways at Carleton. At the University's Arthur Kroeger College of Public Affairs, a February leadership forum brought together more than 150 key Canadian figures—leaders from every sector who were prepared to address the range of issues facing Canada in the new global environment.



## Women in Engineering and Science (WES) Program

Carleton mathematics and physics student Rowan Thomson was one of only 25 recipients across Canada to be honoured with a \$30,000 WES Program Award. Thomson will spend the next three summers working with the National Research Council, making precise time measurements—and gaining valuable work experience.

## New Master's Degree

Following extensive consultation among students, faculty, and members of the business community, Carleton's Master of Management Studies degree was renamed Master of Business Administration. According to **Vinod Kumar**, Director of the Eric Sprott School of Business, the name change will ensure a higher profile for the University's degree through improved recognition by the public and the business community. The program itself will undergo only one other change: a 15-per cent increase in faculty through the hiring of additional research-intensive Ph.D. graduates.

### TEACHING ACHIEVEMENT AWARDS

Carleton University's Teaching Achievement Awards each carry a \$15,000 prize. These awards recognize not only excellence among our top-notch faculty, but also the spirit of innovation that ensures teaching remains fresh, vital, and engaging. This year's recipients are:

**James Cheetham**, Department of Biology / **Virginia Caputo**, Pauline Jewett Institute of Women's Studies / **Timothy Pychyl**, Department of Psychology / Centre for Initiatives in Education / **Edward Osei Kwadwo Prempeh**, Department of Political Science

### PROFESSIONAL ACHIEVEMENT AWARDS – LECTURER

Established in 1989, these \$1,500 annual awards honour the outstanding performances of three Carleton lecturers.

**Tom Ray**, Department of Electronics / **Ann Woodside**, School of Mathematics and Statistics / **Natalie Artemeva**, School of Linguistics and Applied Language Studies

### PROFESSIONAL ACHIEVEMENT AWARDS – LIBRARIAN

Each year, the skills and contributions of two Carleton librarians are recognized with these \$1,500 awards.

**Laurie Campbell** / **Ene Tikovt**

### RESEARCH ACHIEVEMENT AWARDS

Part of a comprehensive internal program that recognizes significant professional accomplishments, the Research Achievement Awards provide Carleton University's faculty with 10 awards of \$15,000 annually. This year's recipients are:

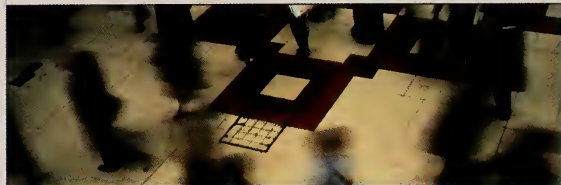
**Hymie Anisman**, Department of Psychology, *Depression and Cytokines* / **Prosenjit Bose**, School of Computer Science, *Design of Efficient Online Routing Algorithms* / **Lionel Briand**, Department of Systems and Computer Engineering, *Inspection and Support for UML Analysis and Design* / **Andrew Brook**, Department of Philosophy/Institute of Interdisciplinary Studies, *The Representational Theory of Consciousness and its Critics* / **Paul Keen**, Department of English Language and Literature, *Reading for Profit: Literature, Commerce and Fashion, 1750-1800* / **Vinod Kumar**, Eric Sprott School of Business, *Managing Offshore R&D Efforts Effectively* / **Bruce Pappas**, Department of Psychology, *Ecotopic Sympathetic Brain Ingrowths and Alzheimer's Dementia* / **Nicola Santoro**, School of Computer Science, *Sense of Direction and Beyond* / **Wayne Wang**, Department of Chemistry, *New Organic Semiconductors for Transistor Applications* / **Qi-jun Zhang**, Department of Electronics, *Neural Based Techniques for High-Frequency Circuit Modeling*

## e-business lab

This year, Carleton's Eric Sprott School of Business continued to distinguish itself as an international leader in commerce education through the opening of its e-lab. This cutting-edge e-business facility is a focal point for both teaching and research in the field of integrated business solutions. Through software from SAP, IBM, and Oracle—and co-op placements—business students explore leading enterprise applications and gain valuable real-world business experience.

## Great Scott

In August, fourth-year Ph.D. student Sam Scott was awarded the David Marr Prize for best student-authored paper at the 23<sup>rd</sup> annual meeting of The Cognitive Science Society in Edinburgh, Scotland. Scott's submission, *Metarepresentation in Philosophy and Psychology*, examined the confusion of terminology that often arises in interdisciplinary collaboration.



Beginning this academic year (2001-2002), Carleton University will help broaden the range of programs available to students living in Nunavut. Through a partnership between the Centre for Initiatives in Education (CIE) and Nunavut Arctic College, Carleton will offer courses in English language and composition, sociology, and political science at Iqaluit's Nunatut campus.

## New Degree Programs Introduced

The Ottawa-Carleton Institute for Environmental Engineering was created to house the new Master's and Ph.D. programs in Environmental Engineering.

The Master of Management Studies program was changed to a Master of Business Administration (M.B.A.).

A new graduate diploma in European Integration Studies was introduced.

## Convocation Honorary Degrees

### SPRING CONVOCATION 2001

#### HONORARY DEGREE RECIPIENTS

**Gülşin Sağlamer**, Rector, Istanbul Technical University, *Doctor of Architecture, honoris causa* / **Harry B. Gray**, Director, Beckman Institute, California Institute of Technology, *Doctor of Science, honoris causa* / **Claude A. Edwards**, former President, Public Service Alliance of Canada, former Vice-President, Canadian Labour Congress, and former Chair, Carleton University Board of Governors, *Doctor of Laws, honoris causa* / **Paul De Keersmaecker**, former Secretary of State, European Affairs and Agriculture, Kingdom of Belgium, *Doctor of Laws, honoris causa* / **Bruce A. McFarlane**, Professor Emeritus, Department of Sociology and Anthropology, Carleton University, *Doctor of Laws, honoris causa* / **Mario Bernardi**, Principal Conductor, CBC Vancouver Orchestra and Conductor Laureate, National Arts Centre Orchestra, *Doctor of Music, honoris causa*

#### FOUNDERS AWARD

**Margaret Wade Labarge**, Adjunct Research Professor, Department of History, Carleton University and former member of the Carleton University Board of Governors

#### HIGH SCHOOL TEACHING AWARDS

**Joan Tomiuk**, Glebe Collegiate Institute, Ottawa / **Raghavan Vijay**, Fellowes High School, Petawawa / **Darryl Woods**, Earl of March Secondary School, Ottawa

### FALL CONVOCATION 2001

#### HONORARY DEGREE RECIPIENTS

**Trina McQueen**, President and Chief Executive Officer, CTV Television Network, *Doctor of Laws, honoris causa* / **George Anderson**, President and Chief Executive Officer, Insurance Bureau of Canada, *Doctor of Laws, honoris causa*

### SPECIAL CONVOCATION 2001

**His Excellency Guy Verhofstadt**, Prime Minister, Kingdom of Belgium and President-in-Office, European Council, *Doctor of Laws, honoris causa* / **His Excellency Romano Prodi**, President, European Commission, *Doctor of Laws, honoris causa*

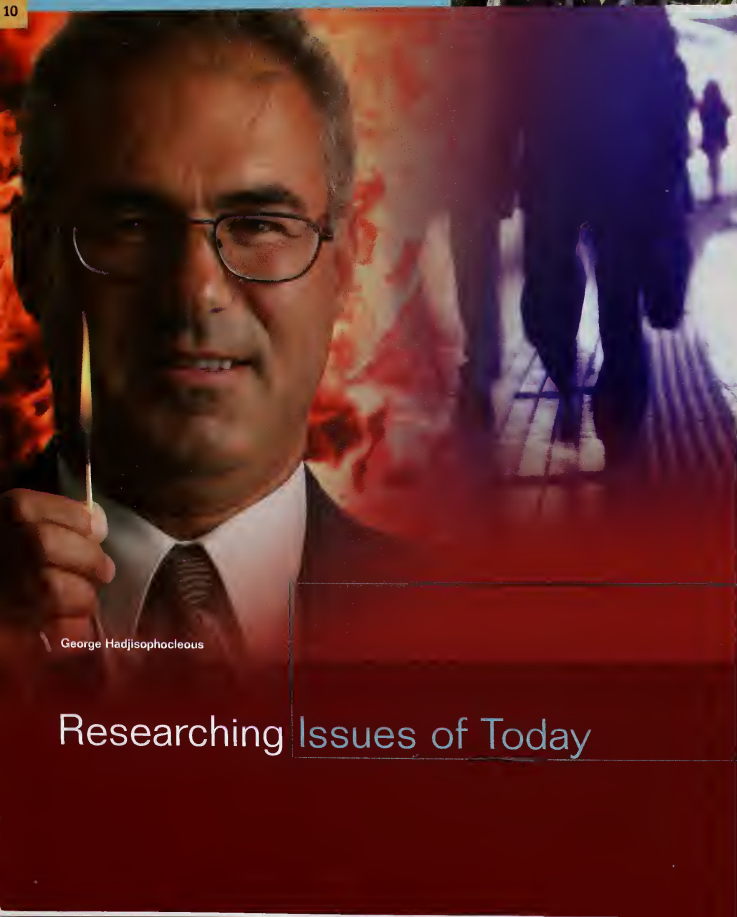


Zoltan Jakab graduated in November 2001 with the University's first doctoral degree in cognitive sciences, winning both the Governor General's Medal and the University Medal for outstanding graduate work at the Ph.D. level. The only program of its kind in Canada, Carleton's cognitive science program combines the study of philosophy, computer science, psychology, linguistics, and neuroscience.



## Research Excellence

Joanna Pozzulo received the Canadian Psychological Association's 2001 President's New Researcher Award. The Carleton assistant psychology professor was recognized for her studies of children and their experiences as witnesses in the criminal justice system.



George Hadjisophocleous

## Researching Issues of Today

### All Fired Up

"Each year, fires in Canada cause an average of more than one billion dollars in damages and kill 400 people." Sobering words from Dr. George Hadjisophocleous, who is determined to help reduce those numbers as Canada's first Industrial Research Chair in Fire Safety Engineering.

Made possible by more than \$1.2 million in funding from the Natural Sciences and Engineering Research Council (NSERC) and Forintek Canada Corporation, the Chair operates from Carleton's Department of Civil and Environmental Engineering.

"Canada spends \$3.3 billion on fire protection and prevention each year," comments Hadjisophocleous, an internationally recognized fire safety expert. "We hope our research and the development of cutting-edge innovations will lead to fire safety solutions that will reduce these costs without sacrificing the level of fire safety in buildings."

Hadjisophocleous and his team will develop computer-modeling techniques that examine how fires develop in buildings and homes. Students and researchers will also conduct live tests at the National Research Council (NRC) and at new facilities that Hadjisophocleous hopes to see built near the existing NRC facilities in Almonte, Ontario.

Fire safety research is not restricted to technical issues, however; human behaviour will also be examined, and Hadjisophocleous sees this as an exciting aspect of his work. "Contrary to popular opinion, most people do not panic in emergency situations; new findings show we're usually very rational when confronted by fire."

A former researcher with the NRC, Hadjisophocleous also leads the development of Carleton's fire safety engineering graduate program—the only one of its kind in Canada. The response so far is very encouraging. From across Canada, 24 students have registered in the two graduate courses offered this fall. Four of these students have been accepted in the graduate school—two at the Ph.D. level and two at the master's level.



## Smart Material

After 25 years with Xerox Canada, photonics specialist **Pudupadi Sundararajan** joined Carleton's chemistry department in September 2000. He will occupy the newly created Industrial Research Chair of Morphology of Smart Materials and Composites, a \$1.25 million research position funded by Xerox Canada and the Natural Sciences and Engineering Research Council.

"Xerox allowed me to choose any university in Canada," says Sundararajan, who selected Carleton because of its established relationship with Xerox, and the University's close ties with Ottawa's high tech sector.

Sundararajan is also President-elect of the Canadian Society for Chemistry. He has published extensively and holds seven U.S. patents.



J. David Miller

## PROMOTING RESEARCH EXCELLENCE

The Government of Canada is providing \$900 million to support the establishment of 2,000 Canada Research Chairs in universities across the country by 2005. The chairs will assist Canadian universities in becoming centres of worldclass research excellence in the global, knowledge-based economy.

For 2001, Carleton University's Canada Research Chair appointees are:

Professor of Chemistry **Zhi Yuan (Wayne) Wang**, *Canada Research Chair in Emerging Organic Materials* / Professor of Biology and Chemistry **Ken Storey**, *Canada Research Chair in Molecular Physiology* / Professor of Public Policy and Administration and Economics **Stan Winer**, *Canada Research Chair in Public Policy, Public Finance and Democratic Choice* / Associate Professor of Art and Culture, Comparative Studies and Canadian Studies **Paul Th  berge**, *Canada Research Chair in Technological Mediations of Culture* / Assistant Professor of Physics **Alain Belle  ve**, *Canada Research Chair in Experimental Particle Physics* / Professor of Psychology **Hymie Anisman**, *Canada Research Chair in Neuroscience* / Associate Professor of Philosophy, Linguistics and Applied Language Studies and Cognitive Science **Robert Stainton**, *Canada Research Chair in Cognitive Science* / Associate Professor of Biology **Mark R. Forbes**, *Canada Research Chair in Ecological Parasitology/Wildlife Conservation*.

## Getting Us Where We Live

Disturbed and intrigued by the doubling of asthma rates in his lifetime, Carleton chemistry professor J. David Miller has spent the past 15 years researching the links between respiratory disease and building-associated fungi. Miller's efforts were rewarded during 2001 when he was appointed to the new Natural Sciences and Engineering Council (NSERC) Chair in Fungal Toxins and Allergens.

The research of Miller and others in his field have identified damp homes as contributing factors in the growing number of upper-respiratory illnesses. "If you live in a damp house," observes Miller, "you run a 50-percent chance of getting asthma, and a 60-percent chance of contracting colds and flu."

The new Carleton Chair will help keep Canada at the forefront of occupational and environmental health research. Miller and his team will develop ways to measure exposure to potentially toxic particles. Miller will also continue his study of the health effects of house- and building-borne microbes, and research the role of fungal metabolites in lung biology.

Miller is anxious to make advanced contaminant-detection technology more accessible to the general public. "We want people to be able to walk into the corner drugstore and buy the tools they need to determine whether or not their homes are contaminated."

## Prodigious Performance

**Jacques Chevalier** certainly didn't spend his sabbatical with his head buried in books; he was too busy writing them. The Carleton sociology professor published four new volumes—one co-written, and three on his own. Chevalier specializes in postmodern theory, the semiotics of culture, and in the anthropology of underdevelopment.

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Katie Gilmour

## Problem Solved

One of the outstanding problems in physics for the past 40 years has been the large discrepancy between the predicted number of neutrinos produced by and radiated from the sun, and the number detected at the Earth.

In the spring, Carleton physics professor David Sinclair was instrumental in key discoveries made by the Sudbury Neutrino Observatory (SNO), an international research facility that is attempting to resolve this problem.

As Deputy Director of the SNO, Sinclair and his team were able to show that the problem was caused by a peculiar property of neutrinos that allows them to change between the time they are produced and detected. The SNO team showed for the first time that the models of energy production in the sun are valid, and that neutrinos possess mass.

## Fish Facts

Carleton biology professor Katie Gilmour has been showered with accolades during the past year, acknowledging the broad range of her accomplishments. An expert in the respiratory physiology of fish, Gilmour is currently investigating whether the presence of extracellular carbonic anhydrase affects carbon dioxide excretion. This work—supported by a recent grant from the Natural Sciences and Engineering Research Council (NSERC)—will help in determining how fish cope when pollutants such as acid rain change their environments.

Gilmour is also the recipient of an NSERC University Faculty Award, which will contribute \$40,000 toward her annual salary in each of the next three years.

In March 2000, Gilmour received New Opportunities funding from the Canadian Foundation for Innovation (CFI). When combined with matching funds from the province and Carleton University, the CFI grant will generate \$400,000 for the new Aquatic Animal Facility and Physiology Laboratory. This exciting research facility will be housed in the newly constructed H.H.J. Nesbitt Biology Building.

Gilmour's outstanding achievements were also recognized by the United Kingdom's Society for Experimental Biology and the American Society for Integrative and Comparative Biology. Both societies recently presented her with awards recognizing significant contributions by young investigators to experimental biology through research and publication.

In November 2001, Gilmour also received the Premier's Research Excellence Award (PREA) as one of the province's best and brightest young researchers.





## Research Renewed

In 1996, Jörg-Rüdiger Sack became Ontario's first Industrial Research Chair Holder in Computer Science—and only the second in Canada—with his appointment to the Natural Sciences and Engineering Council Research Chair in Applied Parallel Computing. With its renewal in July, the Chair receives nearly one million dollars in additional funding, as well as a dynamic new partner—SUN Microsystems of Canada.

Since 1993, Sack and his team have pioneered research and development in the field of parallel computing, which links multiple devices to deliver faster and more comprehensive solutions to complex problems.

## Rock, Paper, Scissors

We're all familiar with the childhood game of *Rock, Paper, Scissors*. The game is also immensely popular in Japan, where it is known as *Jan Ken Pon*. When Japan's Gifu Prefecture teamed up with the International Design Network Foundation (IDNF) for the first World Design Competition, *Jan Ken Pon* was chosen as the theme. The call for entries solicited designs for small handheld objects.

Third-year Carleton Industrial Design student Melanie Higashi took up the challenge. Immersed in research for the project, Higashi became fascinated with a book of drawings by visually impaired artists. Higashi immediately recognized she had the opportunity not only to create a new design, but also to make a contribution to society.



Pascale Champagne

Higashi consulted with the Canadian National Institute for the Blind in developing *Tactile Learning*. This startlingly simple and beautiful project combines Braille with the Roman alphabet in a series of flash cards. *Tactile Learning* teaches visually impaired children how to recognize shapes and associate them with both alphabets. Higashi was particularly anxious to develop a tool that all children could use, regardless of visual acuity. "*Tactile Learning* encourages all these children to learn together," says Higashi.

One of 110 entries from 18 countries, Higashi's project shared top prize at the World Design Competition, the latest example of an impressive trend at the University. Carleton industrial design students have won prizes at four major competitions in a row—a testament to the level of skill found in Carleton's program.

## Amazing Waste

Governments across North America are working to establish sustainable development practices, carefully balancing economic pressures and environmental concerns. Yet advances in the farming industry, for instance, are leading not only to the production of higher livestock yields, but also ever-increasing amounts of biosolid wastes. According to the annual report of the Auditor General's Commissioner of the Environment and Sustainable Development, livestock operations in Ontario and Quebec produce enough manure to equal the sewage of 100 million people. Recent events in Walkerton, Ontario, and North Battleford, Saskatchewan, have demonstrated that current biosolid waste management practices could pose a serious threat to our drinking water supplies.

The work of specialists such as Carleton environmental engineering professor Pascale Champagne, however, is providing timely and innovative research. In May 2001, Champagne's Carleton team was awarded a \$600,000 research contract from Agronix Inc., a Vancouver-based firm specializing in bioconversion technologies. Agronix and Carleton will provide additional support through combined in-kind contributions of two million dollars.

A graduate of Carleton University, Champagne will lead her team in a four-year project to develop methods for extracting commodity chemicals from the organic residues of livestock manure and sewer sludge. Research will commence immediately to seek growth substrates, organically based plant nutrients and soil amendments in hog manure—roughly 24.4 million tonnes of which is produced in Canada each year. The team's main goal is to develop a bioconversion process which is relatively flexible and could, in the near future, be used on other biosolids, thereby addressing a serious waste management problem faced by municipalities and industries alike.

## A Tradition of Support

Carleton University's ambitious plans for the future rely on a firm foundation of alumni support. For 60 years, generations of Carleton graduates have channeled their talent, expertise, and commitment to advance the University's mission and ensure their alma mater remains competitive.

Many of Carleton's time-honoured traditions were initiated by the alumni association, including the distinguished alumni awards series, the annual Homecoming Weekend, as well as a range of associated programs and services for alumni and students.

Today's alumni association continues to offer the University a wealth of volunteer support. In the past 12 months alone, nearly 400 graduates have joined Carleton's PATRON program, an innovative on-line enterprise that links alumni with volunteer opportunities at the University. Offered through the Carleton Café Web site, PATRON was recognized in 2001 by the Canadian Council for the Advancement of Education with a silver award for Best E-Innovation in Alumni Programming.

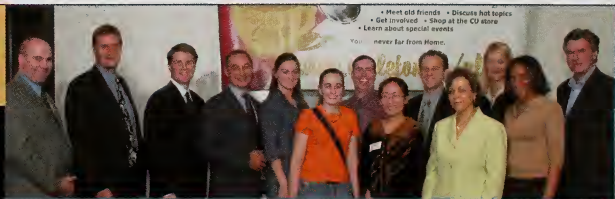
Now more than 87,000 strong, Carleton's alumni association is a truly global network, with active branches, chapters, and affiliates worldwide. Alumni leaders play a significant role in Carleton's growth, ensuring a legacy that will continue to inspire graduates for generations to come.



The alumni association honoured Robert J. Laughton, B.A./59, left, as 2001 Alumni of the Year, for his longstanding contributions to the advancement of alumni affairs and activities. Wesley Nicol, B.A./54, was recognized as 2001 Entrepreneur of the Year for outstanding achievement.



The leadership of alumni volunteers continues to be a source of pride and inspiration to Carleton. Several past and present members of the alumni association executive gathered in Ottawa at a recognition reception last fall. From left: Jennifer Higgins-Ingham, B.A./89, B.A.Hons./92, Past-President; Jim Watson, B.A./83, Former President and Board of Governors Representative; Gail Larose, B.A.Hons./69, M.A./70, Former President and Board of Governors Representative; Gerard Buss, B.A./73, President; and Jane Gilbert, B.J./80, Vice-President, Chapters.



Approximately 50 alumni mentors and student protégés attended the official launch of Carleton's 2001 PATRON mentorship program on October 11. Entering its fourth year, the mentorship program now has over 100 volunteer participants.

## Alumni Report

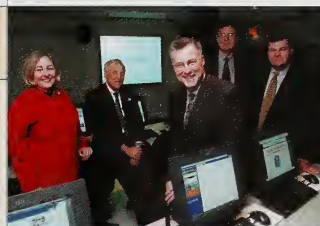
## An Impressive Achievement

Carleton University is concluding the largest fundraising effort in its history. The five-year Capital Campaign raised \$118 million—more than double the \$50-million target.

The impact of this impressive fundraising achievement is both profound and immediate throughout the University.

- A \$10-million endowment for the Eric Sprott School of Business ensures the School's continued role as a leader in entrepreneurship and management education, as well as e-business training.
- More than \$20 million in new scholarships, awards, and bursaries enhance Carleton's ability to attract top students.
- Three new endowed Research Chairs—the Carty Chair in Business Journalism, the CTV Chair in Science Broadcast Journalism, and the New Sun Chair in Aboriginal Studies—are the first of their kind in Canada.
- Capital projects, such as the \$17-million David J. Azrieli Pavilion—currently under construction—will house advanced technology research laboratories and lecture theatres to help meet the demands of increased enrolment.
- Meeting the University's greatest needs now and for years to come, endowment funds support the College of the Humanities, the Arthur Kroeger College of Public Affairs, the schools of journalism and communication, business, and architecture, and each of Carleton's academic faculties.
- New and enhanced teaching and research facilities such as the March Networks/Analog Devices Voice-over IP laboratory will ensure students access to sophisticated cutting-edge technologies.
- A \$9-million campaign for the arts and social sciences will continue into 2002 to support chairs and professorships, student aid, and specialized programs—including the College of the Humanities and the establishment of the new Arts and Social Sciences Centre for the Use of Technology in Learning.

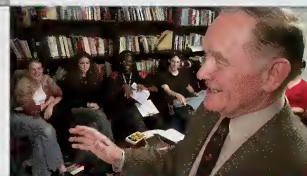
Carleton will showcase the achievements of the Capital Campaign in Ottawa on March 7, 2002. A gala celebration will provide the University with the chance to recognize the generosity and support of volunteer leaders, individual and corporate donors, community partners, alumni and friends—people who have all made a lasting impact on the future of Carleton University.



Eric Sprott, B.Com./65, (centre), joins Cindy Boucher, Vice-President, (Advancement); Richard Van Loon, President; Jeff Kennedy, Partner, Sprott Securities; and Doug Peebles, representative for SAP Canada; in the e-Lab, part of Carleton's new state-of-the-art Sprott Technology Centre.



Bower Carty left a \$6.5 million bequest to the University this year.



Leonard Lee, Founder and President of Ottawa-based Lee Valley Tools, discusses the role of the arts in business with students in the College of the Humanities at Carleton. Lee is supporting Carleton's \$9-million fundraising campaign for the Faculty of Arts and Social Sciences with the creation of the Lee Valley Entrance Scholarship to be awarded annually to an outstanding student entering the Bachelor of Humanities program. He received an honorary Doctor of Engineering from Carleton in 1999.

## Capital Campaign Report



# Financial Report

In September 2001, the Board of Governors received the Financial Report for the year ended April 30, 2001. The Report showed that operating revenues exceeded expenses by \$2,744,000, allowing a reduction of the deficit by that amount. As a result, the cumulative operating deficit at April 30, 2001, was \$23.1 million.

Other notable changes in the financial position of the University over the year include a reduction in the accumulated deficits of ancillary services by \$1.7 million. Ancillary services include those operations that are expected to break even after covering both direct and indirect expenses. They include Athletics, Bookstore/Computer Store, Housing and Food Services, University Health and Counselling Services, Parking, the University Centre, the Carleton Technology and Training Centre, and Graphic Services.

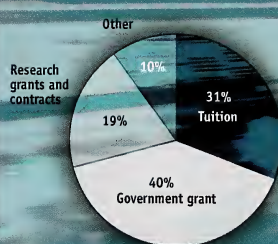
Other changes include a 39-percent increase in the book value of the University's endowment fund which now stands at \$53.5 million.

## OPERATING RESULT

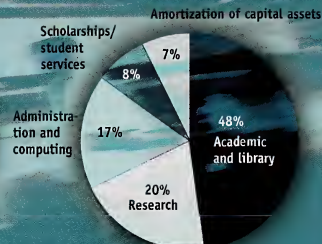
OPERATING INCOME	2000-01 Actual \$000s	1999-00 Actual \$000s
Government of Ontario grant	84,722	83,293
Tuition fees	67,444	62,897
Miscellaneous income	4,755	4,579
Interest income	2,387	1,228
Departmental income	3,347	3,079
Pension surplus	955	1,457
<b>TOTAL OPERATING INCOME</b>	<b>163,610</b>	<b>156,533</b>

OPERATING EXPENSES	2000-01 Actual \$000s	1999-00 Actual \$000s
Faculty of Arts and Social Sciences	23,312	21,997
Faculty of Public Affairs and Management	17,747	16,758
Faculty of Science	13,339	13,208
Faculty of Engineering and Design	12,983	12,433
Academic admin. and student services	33,436	30,319
Research	1,336	3,601
Finance and administration	20,937	18,430
President	1,359	1,286
University budgets	31,649	28,827
Interfund transfers	1,317	1,208
Subtotal operating expenses	157,415	148,067
Severance payments (net)	-	(682)
Net appropriations	3,451	6,973
<b>TOTAL EXPENSES</b>	<b>160,866</b>	<b>154,358</b>
Deficit reduction for the year	2,744	2,175
Opening accumulated deficit	(25,813)	(27,988)
Closing accumulated deficit	(23,069)	(25,813)

## REVENUE\*



## EXPENDITURES\*



\* excluding ancillaries

## ANCILLARY OPERATIONS – OPERATING RESULTS AND FUND BALANCES

	2000-01 Actual \$000	1999-00 Actual \$000
Income and internal recoveries	24,707	22,850
Expenses and transfers	22,945	21,912
Surplus (deficit)	1,762	938
<b>Fund Balance at April 30, 2001</b>	<b>\$000</b>	<b>Fund Balance at April 30, 2000</b> <b>\$000</b>
Ancillaries with accumulated surplus	1,125	662
Ancillaries with accumulated deficit	(3,580)	(4,879)
	<b>(2,455)</b>	<b>(4,217)</b>

## CARLETON FACTS

### Students (2001)

Full-time undergraduate	12,322
Part-time undergraduate	3,590
<b>Total undergraduate</b>	<b>15,912</b>
Full-time graduate	1,737
Part-time graduate	795
<b>Total graduate</b>	<b>2,532</b>
<b>Total full-time</b>	<b>14,059</b>
<b>Total part-time</b>	<b>4,385</b>
<b>Total</b>	<b>18,444</b>

### STAFF (2000/2001)

Academic staff	700
Sessional lecturers	449
Teaching assistants	1,045
Management and support staff	849
<b>Total</b>	<b>3,043</b>

# University Governance

## Senate as of October 3, 2001

### Elective Faculty Seats (terms ending June 30, 2004)

Fred Afagh / David Cray (Secretary, PAM Faculty Board) / Linda Duxbury / Steven Fai / Lois Frankel / Charles Gordon / Boguslaw Jarosz / Elaine Keillor / Jacob Kovalio / Vinod Kumar / Tim Law (Secretary, Engineering Faculty Board) / Gregory MacIsaac / Michael Mac Neil / Leslie Pal / Dorina Petriu / Zuzana Pick / Ian Pringle / Archibald Ritter / Sinclair Robinson / Roland Thomas / Barry Wright

### Elective Faculty Seats (terms ending June 30, 2003)

John Blenkinsop (Secretary, Science Faculty Board) / Doug Howe / Edward Lai / Natalie Luckyj / George McKnight (Secretary, FASS Faculty Board) / Donald Russell / Kenneth Torrance

### Elective Faculty Seats (terms ending June 30, 2002)

John C. Armitage / J. Andrew Brook / Marvin Glass / David Long / Shirley Mills / Michel Nakhla / Susan Phillips / Joseph Ramisch

### Elective Student Seats (terms ending June 30, 2002)

Jennifer Breakspear (Public Affairs and Management) / Joseph Bright (Science) / Tracy Coates (Arts and Social Sciences) / Marco D'Angelo (Public Affairs and Management) / Matthew Deline (Graduate Studies and Research) / Karin Manning (Engineering) / Mike McGinn (Architecture) / James Patterson (Arts and Social Sciences) / Jill Scott (Graduate Studies and Research) / Ian Stakenivicus (Computer Science)

### Ex Officio Members of Senate

G. Stuart Adam, Vice-President (Academic) and Provost / Roger C. Blockley, Dean, Faculty of Graduate Studies and Research / Martien de Leeuw, Director, School of Industrial Design / Frank Dehne, Director, School of Computer Science / Aviva Freedman, Dean, Faculty of Arts and Social Sciences / Gulzar Haider, Director, School of Architecture / Feridun Hamdullahpur, Vice-President (Research) / Arthur Kroeger, Chancellor / Leonard Librande, Dean of Students / Samy Mahmoud, Dean, Faculty of Engineering and Design / Allan M. Maslove, Dean, Faculty of Public Affairs and Management / Jay Nordenstrom, President, Carleton University Students' Association / Andrea Rounce, President, Graduate Students' Association / Richard J. Van Loon, President and Vice-Chancellor / Peter J.S. Watson, Dean, Faculty of Science / Duncan Watt, Vice President (Finance and Administration)

### Board of Governors Representatives

Ross Donaldson / Barbara McNally / Gail Mutton / Jacques Shore

### Special Appointees

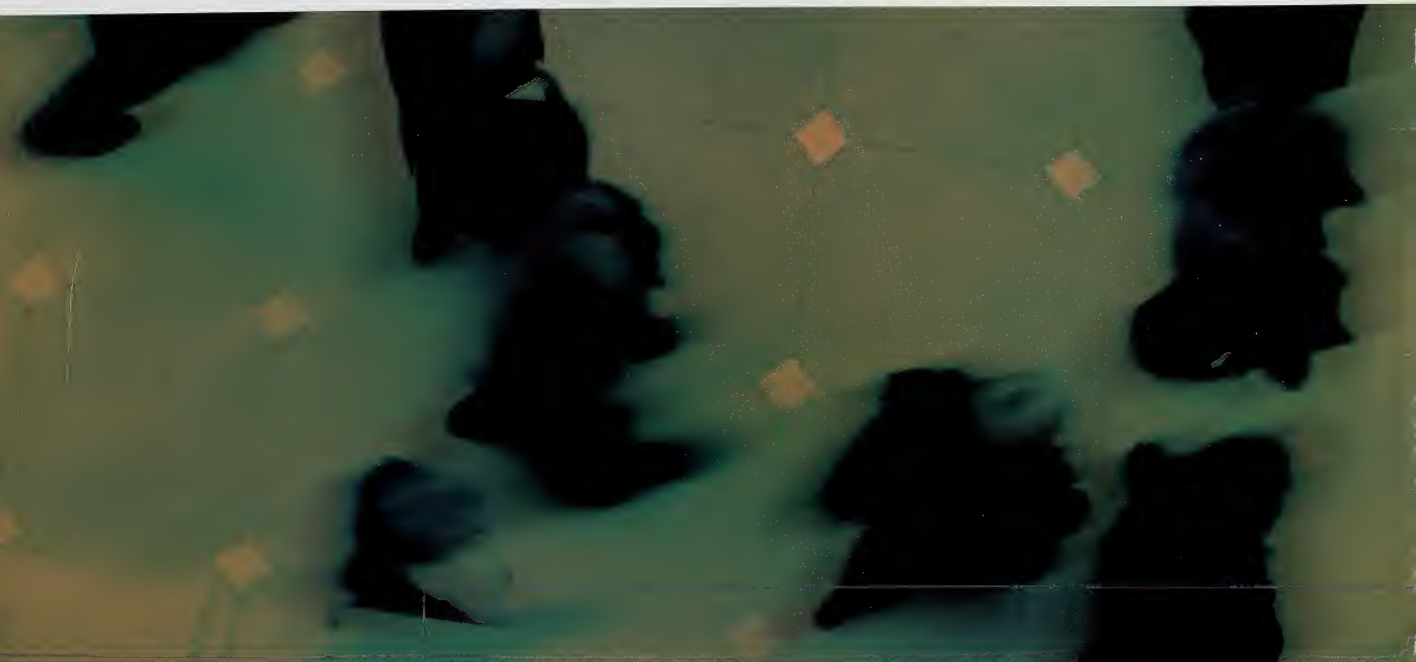
Chong Chan, Clerk of Senate (June 30, 2002) / Dennis Forcese, Academic Colleague (June 30, 2002) / Brian Ford, Alumni Representative (June 30, 2002) / Martin Foss, University Librarian (June 30, 2003)

## Board of Governors (2001 – 2002)

Allan Lumsden, Chair / Jocelyn Mallett, Vice-Chair / Louise Bergeron-de Villiers / Margaret Bloodworth / Margaret Dacey / Peter Doherty / Ross Donaldson / David Dunn / Linda Duxbury / Tom Grant / Andrew Haydon / Nancy Hughes Anthony / Robert Johnson / Vinod Kumar / Nazeer Ladhani / Edward Lai / Gail Larose / Robert Laughton / Frank Ling / Richard Martin / Barbara McNally / Shirley Mills / Judith Moses / Gail Mutton / Jay Nordenstrom / James Pratt / Katherine Saunders / Jacques Shore / Michelle Sutherland / Jim Watson / Arthur Kroeger, Chancellor / Richard J. Van Loon, President and Vice-Chancellor / Lynn Collins, Secretary of the Board and Deputy University Secretary

## Officers of the University

Arthur Kroeger, Chancellor / Richard J. Van Loon, President and Vice-Chancellor / G. Stuart Adam, Vice-President (Academic) and Provost / Feridun Hamdullahpur, Vice-President (Research) / Duncan Watt, Vice-President (Finance and Administration) / Lucinda (Cindy) E. Boucher, Vice-President (Advancement) / Susan Gottheil, Associate Vice-President (Enrolment Management) / Serge Arpin, Assistant Vice-President (Development and Alumni) / Aviva Freedman, Dean, Faculty of Arts and Social Sciences / Allan M. Maslove, Dean, Faculty of Public Affairs and Management / Peter J.S. Watson, Dean, Faculty of Science / Samy Mahmoud, Dean, Faculty of Engineering and Design / Roger C. Blockley, Dean, Faculty of Graduate Studies and Research / Leonard Librande, Dean of Students / Martin Foss, University Librarian



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Brigitte Bouvier and Rod McIvor, *The Ottawa Citizen*; Stiff Sentences, Beauregard Printers, Department of University Communications  
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